

**Supplemental Exhibit to Plaintiffs' Motions  
for a Temporary Restraining Order and  
Preliminary Injunction, Parga, et al. v. Tulsa  
County, et al., 18-CV-298, ECF Nos. 158, 159**

**Declaration of Dr. Elizabeth Y. Chiao**

**IN THE UNITED STATES DISTRICT COURT  
FOR THE NORTHERN DISTRICT OF OKLAHOMA**

MICHAEL PARGA, et al.,  
on behalf of themselves and all others  
similarly situated,

Plaintiffs,

v.

TULSA COUNTY, et al.,

Defendants.

Case No. 18-cv-0298-CVE-JFJ

**Declaration of Dr. Chiao**

**I. Background and Qualifications**

1. I am Dr. Elizabeth Chiao, Professor of Medicine, Division of Infectious Diseases and Health Services, Research, Baylor College of Medicine. I am board certified by the American Board of Internal Medicine (ABIM) in Medical Oncology and Infectious Diseases. I am licensed to practice medicine in the state of Texas, license number L8647. I earned my Doctor of Medicine from Cornell University Medical College, and Master Degree in Public Health from Yale University School of Medicine, Department of Epidemiology and Public Health. I completed my residency at the University of Utah, and completed Fellowships in Medical Oncology at Memorial Sloan Kettering, and in Infectious Diseases at Baylor College of Medicine.
2. I have worked for the past 14 years as Faculty in the Division of Infectious Diseases and Health Services Research at Baylor College of Medicine. My research interests focus on the epidemiology, prevention, treatment and outcomes of HIV-related comorbidities and Cancers, as well as health disparities for people living with HIV.
3. In the past 14 years I have received continuous funding by the National Institutes of Health (NIH) starting with an NCI funded K23 (K23 CA124318) in 2006. I subsequently received an NCI funded R01 (R01CA163103) entitled “The Effectiveness of Screening HIV-infected Women for Anal Cancer Precursors,” and a second R01 (R01CA206476) “(PQ 3) Identifying Novel Pharmacologic Risk factors for Common Non-AIDS Defining Cancers in Individuals with Well-controlled HIV Infection.” I am additionally a co-investigator on multiple national NIH funded projects. I also hold several leadership positions in the AIDS Malignancy Consortium (AMC): I am 1) the Baylor College of Medicine principal investigator for the AMC, 2) the co-chair of AMC 087: a phase 1 protocol of Cabozantinib for the treatment of

advanced solid tumors in HIV-infected individuals (currently enrolling), and 3) the chair of the Solid Tumor Working Group in the AMC. Furthermore, I collaborate with U.S.-based and international researchers, and I have been appointed to several national and international committees including the Board of Scientific Advisers subcommittee for HIV-related malignancies, scientific merit review committees for South Africa and the organizing committee for the International HIV Malignancy Conference. My clinical work as the clinical director of both the Anal Dysplasia and Medical Oncology clinics at the Thomas Street Health Center was recognized with a Baylor Clinician STAR award in 2017. Finally, I lead an active mentoring program where several mentees have successfully applied for and obtained career development awards and other various research funding. In summary, I am a clinician researcher whose goals are to improve survival and quality of life for people living with HIV (HIV), and individuals with virally mediated cancer by improving cancer prevention, screening and treatment outcomes.

4. I have written and published extensively on the topics of infectious diseases and the epidemiology of people living with HIV (PLWH), including papers about PLWH involved in the criminal justice system. In particular, I have published in leading peer-reviewed journals on the health disparities and ethical medical care for PLWH for people in detention; disparities in the outcomes of AIDS-related Kaposi Sarcoma; and how to improve screening for Human Papillomavirus-related cancers in PLWH to take just three examples.
5. My C.V. includes a full list of my honors, experience, and publications, and it is attached as Exhibit A.
6. I am donating my time reviewing materials and preparing this report. Any live testimony I provide will also be provided *pro bono*.
7. I have not testified as an expert at trial or by deposition in the past four years.
8. This declaration is substantially the same as a sworn declaration submitted by Dr. Jaimie Meyer, Assistant Professor of Medicine at Yale School of Medicine and Assistant Clinical Professor of Nursing at Yale School of Nursing in New Haven, Connecticut, in federal court in New York. *Velesaca v. Wolf*, No. 20-cv-01803 (S.D.N.Y. Mar. 16, 2020), ECF No. 42. Dr. Meyer is board certified in Internal Medicine, Infectious Diseases and Addiction Medicine.
9. I have reviewed thoroughly Dr. Meyer's report, and the sources cited in it. Based on my own independent training, expertise, and experience in epidemiology and infectious diseases, I fully agree with Dr. Meyer's analysis of the dangers that the novel corona posed in New York City-area jails, and believe that they are applicable, as described below, to the Tulsa County jail.

## **II. Heightened Risk of Epidemics in Jails and Prisons**

10. The risk posed by infectious diseases in jails and prisons is significantly higher than in the community, in terms of risk of transmission, exposure, and harm to individuals who become infected. There are several reasons this is the case, as delineated further below.
11. Globally, outbreaks of contagious diseases are all too common in closed detention settings and are more common than in the community at large. Prisons and jails are not isolated from communities. Staff, visitors, contractors, and vendors pass between communities and facilities and can bring infectious diseases into facilities. Moreover, rapid turnover of jail and prison populations means that people often cycle between facilities and communities. People often need to be transported to and from facilities to attend court and move between facilities. Prison health is public health.
12. Reduced prevention opportunities: Congregate settings such as jails and prisons allow for rapid spread of infectious diseases that are transmitted person to person, especially those passed by droplets through coughing and sneezing. When people must share dining halls, bathrooms, showers, and other common areas, the opportunities for transmission are greater. When infectious diseases are transmitted from person to person by droplets, the best initial strategy is to practice social distancing. When jailed or imprisoned, people have much less of an opportunity to protect themselves by social distancing than they would in the community. Spaces within jails and prisons are often also poorly ventilated, which promotes highly efficient spread of diseases through droplets. Placing someone in such a setting therefore dramatically reduces their ability to protect themselves from being exposed to and acquiring infectious diseases.
13. Disciplinary segregation or solitary confinement is not an effective disease containment strategy. Beyond the known detrimental mental health effects of solitary confinement, isolation of people who are ill in solitary confinement results in decreased medical attention and increased risk of death. Isolation of people who are ill using solitary confinement also is an ineffective way to prevent transmission of the virus through droplets to others because, except in specialized negative pressure rooms, air continues to flow outward from rooms to the rest of the facility. Risk of exposure is thus increased to other people in prison and staff.
14. Reduced prevention opportunities: During an infectious disease outbreak, people can protect themselves by washing hands. Jails and prisons do not provide adequate opportunities to exercise necessary hygiene measures, such as frequent handwashing or use of alcohol-based sanitizers when handwashing is unavailable. Jails and prisons are often under-resourced and ill-equipped with sufficient hand soap and alcohol-based sanitizers for people detained in and working in these settings. High-touch surfaces (doorknobs, light switches, etc.) should also be cleaned and disinfected regularly with bleach to prevent virus spread, but this is often not done in jails and prisons because of a lack of cleaning supplies and lack of people available to perform necessary cleaning procedures.

15. Reduced prevention opportunities: During an infectious disease outbreak, a containment strategy requires people who are ill with symptoms to be isolated and that caregivers have access to personal protective equipment, including gloves, masks, gowns, and eye shields. Jails and prisons are often under-resourced and ill-equipped to provide sufficient personal protective equipment for people who are incarcerated and caregiving staff, increasing the risk for everyone in the facility of a widespread outbreak.
16. Increased susceptibility: People incarcerated in jails and prisons are more susceptible to acquiring and experiencing complications from infectious diseases than the population in the community.<sup>1</sup> This is because people in jails and prisons are more likely than people in the community to have chronic underlying health conditions, including diabetes, heart disease, chronic lung disease, chronic liver disease, and lower immune systems from HIV.
17. Jails and prisons are often poorly equipped to diagnose and manage infectious disease outbreaks. Some jails and prisons lack onsite medical facilities or 24-hour medical care. The medical facilities at jails and prisons are almost never sufficiently equipped to handle large outbreaks of infectious diseases. To prevent transmission of droplet-borne infectious diseases, people who are infected and ill need to be isolated in specialized airborne negative pressure rooms. Most jails and prisons have few negative pressure rooms if any, and these may be already in use by people with other conditions (including tuberculosis or influenza). Resources will become exhausted rapidly and any beds available will soon be at capacity. This makes both containing the illness and caring for those who have become infected much more difficult.
18. Jails and prisons lack access to vital community resources to diagnose and manage infectious diseases. Jails and prisons do not have access to community health resources that can be crucial in identifying and managing widespread outbreaks of infectious diseases. This includes access to testing equipment, laboratories, and medications.
19. Jails and prisons often need to rely on outside facilities (hospitals, emergency departments) to provide intensive medical care given that the level of care they can provide in the facility itself is typically relatively limited. During an epidemic, this will not be possible, as those outside facilities will likely be at or over capacity themselves.
20. Health safety: As an outbreak spreads through jails, prisons, and communities, medical personnel become sick and do not show up to work. Absenteeism means that facilities can become dangerously understaffed with healthcare providers. This increases a number of risks and can dramatically reduce the level of care provided. As health systems inside facilities are taxed, people with chronic underlying physical and mental health conditions and serious medical needs may not be able to receive the

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<sup>1</sup> *Active case finding for communicable diseases in prison*, 391 The Lancet 2186 (2018), [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(18\)31251-0/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(18)31251-0/fulltext).

care they need for these conditions. As supply chains become disrupted during a global pandemic, the availability of medicines and food may be limited.

21. Safety and security: As an outbreak spreads through jails, prisons, and communities, correctional officers and other security personnel become sick and do not show up to work. Absenteeism poses substantial safety and security risk to both the people inside the facilities and the public. Furthermore, rapid spread of infectious diseases among the inmates can often worsen the epidemic outside of the incarcerated population because staff are more likely to be infected and spread the disease to their families and the wider population.
22. These risks have all been borne out during past epidemics of influenza in jails and prisons. For example, in 2012, the CDC reported an outbreak of influenza in 2 facilities in Maine, resulting in two inmate deaths.<sup>2</sup> Subsequent CDC investigation of 995 inmates and 235 staff members across the 2 facilities discovered insufficient supplies of influenza vaccine and antiviral drugs for treatment of people who were ill and prophylaxis for people who were exposed. During the H1N1-strain flu outbreak in 2009 (known as the “swine flu”), jails and prisons experienced a disproportionately high number of cases.<sup>3</sup> Even facilities on “quarantine” continued to accept new intakes, rendering the quarantine incomplete. These scenarios occurred in the “best case” of influenza, a viral infection for which there was an effective and available vaccine and antiviral medications, unlike COVID-19, for which there is currently neither.

### III. Profile of COVID-19 as an Infectious Disease<sup>4</sup>

23. The novel coronavirus, officially known as SARS-CoV-2, causes a disease known as COVID-19. The virus is thought to pass from person to person primarily through respiratory droplets (by coughing or sneezing) but may also survive on inanimate surfaces. People seem to be most able to transmit the virus to others when they are sickest but recent data from China has demonstrated that almost 13% of transmission occurs from asymptomatic individuals before they start to show symptoms, and it is possible that transmission can occur for weeks after their symptoms resolve.<sup>5</sup> In China, where COVID-19 originated, the average infected person passed the virus on to 2-3 other people; transmission occurred at a distance of 3-6 feet. Not only is the

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<sup>2</sup> *Influenza Outbreaks at Two Correctional Facilities—Maine, March 2011*, Centers for Disease Control and Prevention (2012), <https://www.cdc.gov/mmwr/preview/mmwrhtml/mm6113a3.htm>.

<sup>3</sup> David. M. Reutter, *Swine Flu Widespread in Prisons and Jails, but Deaths are Few*, Prison Legal News (Feb. 15, 2010), <https://www.prisonlegalnews.org/news/2010/feb/15/swine-flu-widespread-in-prisons-and-jails-but-deaths-are-few/>.

<sup>4</sup> This whole section draws from Broks J. Global Epidemiology and Prevention of COVID19, COVID-10 Symposium, Conference on Retroviruses and Opportunistic Infections (CROI), virtual (March 10, 2020); *Coronavirus (COVID-19)*, Centers for Disease Control, <https://www.cdc.gov/coronavirus/2019-ncov/index.html>; Brent Gibson, *COVID-19 (Coronavirus): What You Need to Know in Corrections*, National Commission on Correctional Health Care (February 28, 2020), <https://www.ncchc.org/blog/covid-19-coronavirus-what-you-need-to-know-in-corrections>.

<sup>5</sup> Du Z, Xu X, Wu Y, Wang L, Cowling BJ, Ancel Meyers L. Serial interval of COVID-19 among publicly reported confirmed cases. *Emerg Infect Dis.* 2020 Jun [date cited]. <https://doi.org/10.3201/eid2606.200357>



virus very efficient at being transmitted through droplets, everyone is at risk of infection because our immune systems have never been exposed to or developed protective responses against this virus. A vaccine is currently in development but will likely not be able for over a year to the general public. Antiviral medications are currently in testing but not yet FDA-approved. People in prison and jail will likely have even less access to these novel health strategies as they become available.

24. Most people (80%) who become infected with COVID-19 will develop a mild upper respiratory infection but emerging data from China suggests serious illness occurs in up to 16% of cases, including death.<sup>6</sup> Serious illness and death are most common among people with underlying chronic health conditions, like heart disease, lung disease, liver disease, and diabetes, and older age.<sup>7</sup> Among those individuals, the risk of poor outcomes, including the need for mechanical intervention, is over 20%. Death in COVID-19 infection is usually due to pneumonia, and sepsis, and would occur between approximately 1-4% of the population. The emergence of COVID-19 during influenza season means that people are also at risk from serious illness and death due to influenza, especially when they have not received the influenza vaccine or the pneumonia vaccine.
25. The care of people who are infected with COVID-19 depends on how seriously they are ill.<sup>8</sup> People with mild symptoms may not require hospitalization but may continue to be closely monitored at home. People with moderate symptoms may require hospitalization for supportive care, including intravenous fluids and supplemental oxygen. People with severe symptoms may require ventilation and intravenous antibiotics. Public health officials anticipate that hospital settings will likely be overwhelmed and beyond capacity to provide this type of intensive care as COVID-19 becomes more widespread in communities.
26. In order to prevent overwhelming the local health systems, aggressive containment and COVID-19 prevention is of utmost importance. To this end, certain states and jurisdictions, including the City of Tulsa have mandated COVID-19 prevention strategies, such as “shelter in place” or “stay at home,” which have gone beyond containment and mitigation. Jails and prisons already have difficulty with containment because it requires intensive hand washing practices, decontamination and aggressive cleaning of surfaces, and identifying and isolating people who are ill or who have had contact with people who are ill, including the use of personal protective equipment. However, even with these efforts, it is nearly impossible for

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<sup>6</sup> *Coronavirus Disease 2019 (COVID-19): Situation Summary*, Centers for Disease and Prevention (March 14, 2020), [https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/summary.html?CDC\\_AA\\_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fsummary.html](https://www.cdc.gov/coronavirus/2019-ncov/cases-updates/summary.html?CDC_AA_refVal=https%3A%2F%2Fwww.cdc.gov%2Fcoronavirus%2F2019-ncov%2Fsummary.html).

<sup>7</sup> *Clinical course and risk factors for mortality of adult inpatients with COVID-19 in Wuhan, China: a retrospective cohort study*, *The Lancet* (published online March 11, 2020), [https://www.thelancet.com/journals/lancet/article/PIIS0140-6736\(20\)30566-3/fulltext](https://www.thelancet.com/journals/lancet/article/PIIS0140-6736(20)30566-3/fulltext).

<sup>8</sup> *Coronavirus Disease 2019 (COVID-19): Interim Clinical Guidance for Management of Patients with Confirmed Coronavirus Disease*, Centers for Disease Control and Prevention (March 7, 2020), <https://www.cdc.gov/coronavirus/2019-ncov/hcp/clinical-guidance-management-patients.html>.

jails and prisons to provide the atmosphere of “shelter in place” or “stay at home” social distancing, given the number of individuals that work in and are housed in these facilities in the current system. Decreasing the population will help the prison facilities to develop “isolation” strategies that can nearly mirror Tulsa’s mandates.

27. The time to act is now. Data from other settings demonstrate what happens when jails and prisons are unprepared for COVID-19. News outlets reported that Iran temporarily released 70,000 prisoners when COVID-19 started to sweep its facilities.<sup>9</sup> To date, few state or federal prison systems have adequate (or any) pandemic preparedness plans in place.<sup>10</sup> Systems are just beginning to screen and isolate people on entry and perhaps place visitor restrictions, but this is wholly inadequate when staff and vendors can still come to work sick and potentially transmit the virus to others.

#### **IV. Risk of COVID-19 in the Tulsa County Jail**

28. In preparing this report, I have reviewed various media reports about the Tulsa County Jail and the affidavit of Undersheriff George Brown (filed in this case at Doc-158-8) about precautions the Jail is taking in response to COVID-19.
29. At a minimum, it appears that like any other jail, people are housed/ live in close quarters, and because of the number of people detained (approximately 1,000), it is impossible for inmates to comply with local health mandates and CDC recommendations, including social distancing. Moreover, because people cycle in and out of the jail every day, it is virtually impossible to create stable units of people isolating those infected from those who are uninfected, which is necessary to contain infection.
30. The containment measures outlined in Undersheriff Brown’s affidavit are not sufficient to prevent the spread of COVID-19. For example, temperature checks do not work on asymptomatic carriers, which account for nearly 13% of all transmission, and one negative airflow room for a population of over 1,000 inmates is insufficient to maintain a quarantine.
31. I also assume that Tulsa County jail is not equipped to care for multiple patients with an acute illness and that anyone whose symptoms are more severe than mild would be sent to the local hospital. This would cause significant strain on both the local hospital and jail/prison staff.

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<sup>9</sup> *Iran temporarily releases 70,000 prisoners as coronavirus cases surge*, Reuters (March 9, 2020), <https://www.reuters.com/article/us-health-coronavirus-iran/iran-temporarily-releases-70000-prisoners-as-coronavirus-cases-surge-idUSKBN20W1E5>.

<sup>10</sup> *Luke Barr & Christina Carrega, State prisons prepare for coronavirus but federal prisons not providing significant guidance, sources say*, ABC News (March 11, 2020), <https://abcnews.go.com/US/state-prisons-prepare-coronavirus-federal-prisons-providing-significant/story?id=69433690>.



32. Based on my experience working on public health and Infectious Diseases, and my review of the relevant literature, it is my professional judgment that the Tulsa County Jail is dangerously under-equipped and ill-prepared to prevent and manage a COVID-19 outbreak, which would result in severe harm to detained individuals, jail and prison staff, and the broader community. The reasons for this conclusion are detailed as follows.
33. Above and beyond the inability to prevent the spread of COVID-19 and increased risk for severe illness and inability to care for inmates in jail and prisons, the delays in access to care that already exist in normal circumstances will only become worse during an outbreak, making it especially difficult for the facilities to contain any infections and to treat those who are infected.
34. Failure to provide individuals with continuation of the treatment they were receiving in the community, or even just interruption of treatment, for chronic underlying health conditions will result in increased risk of morbidity and mortality related to these chronic conditions.
35. Failure to provide individuals adequate medical care for their underlying chronic health conditions results in increased risk of COVID-19 infection and increased risk of infection-related morbidity and mortality if they do become infected.
36. People with underlying chronic mental health conditions need adequate access to treatment for these conditions throughout their period of detention. Failure to provide adequate mental health care, as may happen when health systems in jails and prisons are taxed by COVID-19 outbreaks, may result in poor health outcomes. Moreover, mental health conditions may be exacerbated by the stress of incarceration during the COVID-19 pandemic, including isolation and lack of visitation.
37. Failure to keep accurate and sufficient medical records will make it more difficult for the facilities to identify vulnerable individuals in order to both monitor their health and protect them from infection. Inadequate screening and testing procedures in facilities increase the widespread COVID-19 transmission.
38. Language barriers will similarly prevent the effective identification of individuals who are particularly vulnerable or may have symptoms of COVID-19. Similarly, the failure to provide necessary aids to individuals who have auditory or visual disabilities could also limit the ability to identify and monitor symptoms of COVID-19.
39. The commonplace neglect of individuals with acute pain and serious health needs under ordinary circumstances is also strongly indicative that the facilities will be ill-equipped to identify, monitor, and treat a COVID-19 epidemic.
40. The failure of these facilities to adequately manage single individuals in need of emergency care is a strong sign that they will be seriously ill-equipped and under-

prepared when a number of people will need urgent care simultaneously, as would occur during a COVID-19 epidemic.

41. For individuals in these facilities, the experience of an epidemic and the lack of care while effectively trapped can itself be traumatizing, compounding the trauma of incarceration.

## V. Conclusion and Recommendations

42. For the reasons above, it is my professional judgment that individuals placed in the Tulsa County Jail are at a significantly higher risk of infection with COVID-19 as compared to the population in the community, given the procedural and housing conditions in the facilities, and that they are at a significantly higher risk of harm if they do become infected. These harms include serious illness (pneumonia and sepsis) and even death.
43. Reducing the size of the population in jails and prisons can be crucially important to reducing the level of risk both for who both are housed and work within those facilities and for the community at large.
44. From a public health perspective, it is my strong opinion that individuals who can **safely and appropriately** remain in the community not be placed in the Tulsa County Jail at this time. I am also strongly of the opinion that individuals who are already in those facilities should be evaluated for release, and that a careful evaluation of procedural and housing guidance is created for those who remain in the facilities during the “stay at home” mandate, and possibly until the epidemic is contained.
45. This is more important still for individuals with preexisting conditions (e.g., heart disease, chronic lung disease, chronic liver disease, suppressed immune systems, cancer, and diabetes) or who are over the age of 60.<sup>11</sup> They are in even greater danger in these facilities, including a meaningfully higher risk of death.
46. It is my professional opinion that these steps are both necessary and urgent. The horizon of risk for COVID-19 in these facilities is a matter of days, not weeks.
47. Health in jails and prisons is community health. Protecting the health of individuals who are detained in and work in these facilities is vital to protecting the health of the wider community.

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<sup>11</sup> *Report of the WHO-China Joint Mission of Coronavirus Disease 2019 (COVID-19)* (Feb. 16-24 2020), available at <https://www.who.int/docs/default-source/coronaviruse/who-china-joint-mission-on-covid-19-final-report.pdf>.

I declare under penalty of perjury that the foregoing is true and correct to the best of my ability.

A handwritten signature in black ink, appearing to read "Gunn", written over a horizontal line.

Name

4/3/2020

Date

**EXHIBIT A**  
**Curriculum Vitae**

**Personal statement**

My research focuses on HIV clinical management, HIV co-morbidity research, HIV malignancy clinical management, and virally-mediated cancer research, with an emphasis on evaluating the epidemiology of HIV-associated cancers, cancer prevention and outcomes. My work involves both utilizing large databases and cohorts to improve cancer prevention strategies for HIV-infected individuals as well as clinical trial/clinical research elucidating the prevention and treatment of HIV-related cancers. My training in Epidemiology, HIV, Oncology, and Infectious Diseases make me uniquely qualified to conduct research in HIV-related and other viral malignancies. My group and I were the first to show the effect of cumulative measurements of combined antiretroviral therapy (cART) on multiple different HIV-associated cancers utilizing VA administrative databases. We have over 20 publications on HIV-associated malignancies focusing on elucidating the impact of HIV-related factors on the incidence of HIV-related malignancies in high impact journals such as *JAMA*, *the Journal of Clinical Oncology*, *Clinical Infectious Diseases*, and the *Journal of Acquired Immune Deficiency Syndromes*. In the past 12 years I have received continuous funding by the National Institutes of Health (NIH) starting with an NCI funded K23 (K23 CA124318) in 2006. I subsequently received an NCI funded R01 (R01CA163103) entitled "The Effectiveness of Screening HIV-infected Women for Anal Cancer Precursors," and a second R01 (R01CA206476) "(PQ 3) Identifying Novel Pharmacologic Risk factors for Common Non-AIDS Defining Cancers in Individuals with Well-controlled HIV Infection." I am additionally a co-investigator on multiple national NIH funded projects. I also hold several leadership positions in the AIDS Malignancy Consortium (AMC): I am 1) the Baylor College of Medicine principal investigator for the AMC, 2) the co-chair of AMC 087: a phase 1 protocol of Cabozantinib for the treatment of advanced solid tumors in HIV-infected individuals (currently enrolling), and 3) the chair of the Solid Tumor Working Group in the AMC. Given my research productivity and expertise, I was recently selected to co-lead the Mechanisms of Cancer Evolution Scientific Working Group in the Dan L. Duncan Cancer Center. Furthermore, I collaborate with U.S.-based and international researchers and I have been appointed to several national and international committees including the Board of Scientific Advisers subcommittee for HIV-related malignancies, scientific merit review committees for South Africa and the organizing committee for the International HIV Malignancy Conference. My clinical work as the clinical director of both the Anal Dysplasia and Medical Oncology clinics at the Thomas Street Health Center were recognized with a Baylor Clinician STAR award in 2017. Finally, I lead an active mentoring program where several mentees have successfully applied for and obtained career development awards and other various research funding. In summary, I am a clinician researcher whose goals are to improve survival and quality of life for HIV-infected individuals, and individuals with virally mediated cancer by improving cancer prevention, screening and treatment outcomes.

**I. GENERAL BIOGRAPHICAL INFORMATION****A. Personal**

1. Name: Elizabeth Yu Chiao, MD, MPH
2. Date of Birth: 7/13/1969; citizenship: USA
3. Home Address: 416 Byrne St. Houston, TX 77009
4. Office Address: Houston VA Medical Center (152), 2002 Holcombe Blvd, Houston, TX 77030
5. Office Phone Number: 713-440-4485
6. Email: echiao@bcm.edu

**B. Education:**

1. Undergraduate Education:
  - a. Cornell University, Ithaca, NY, School of Arts, (Biology and Society), May 1990
2. Medical Education or Graduate Education (with thesis/dissertation title, advisor):
  - a. Yale University School of Medicine, New haven, CT, Department of Epidemiology and Public Health, Master Degree in Public Health, December 1993, Graduated with Distinction, Thesis Title: Survival Analysis of Connecticut AIDS Cases reported through 1990
  - b. Cornell University Medical College, New York, NY, Doctor of Medicine, May 1998
3. Postgraduate Training: residency, fellowship (clinical or research), with source of support and advisor, if relevant):

- a. University of Utah, Salt Lake City, UT, Internal Medicine Department, Resident House staff, June 1998-2001
- b. Postgraduate Training-Fellowship: Memorial Sloan Kettering Cancer Center, New York, NY, Department of Medicine, Medical Oncology Clinical Research Fellow, Advisor: Susan Krown, July 2002-2004
- c. Postgraduate Training-Fellowship: Baylor College of Medicine, Houston, TX, Department of Medicine, Infectious Disease Fellow: July 2004-April 2005

### C. Academic Appointments

1. Current Faculty position at BCM:
  - a. Professor, Internal Medicine, Infectious Diseases, Health Services Research Section, Center for Innovation in Quality, Effectiveness, and Safety, Michael E. DeBakey VA Medical Center, Baylor College of Medicine, 7/2018-present
  - b. Associate Professor, Internal Medicine, Infectious Diseases, Health Services Research Section, Center for Innovation in Quality, Effectiveness, and Safety, Michael E. DeBakey VA Medical Center, Baylor College of Medicine, 3/2014-7/2018
  - c. Assistant Professor, Internal Medicine, Infectious Diseases, Health Services Research Section Center for Innovation in Quality, Effectiveness, and Safety, Michael E. DeBakey VA Medical Center, Baylor College of Medicine, 1/2006-3/2014
  - d. Instructor, Internal Medicine, Infectious Diseases, 4/2005-1/2006
2. Previous faculty position at other institutions:
  - a. University of Utah, Salt Lake City, UT, Instructor, Department of Medicine. Attending physician in the HIV inpatient and outpatient services. Supervise and teach Internal Medicine house staff; 7/2001-7/2002

### D. Other advanced training/experience:

1. Formal Sabbatical leave:
  - a. None
2. Other specialized training following academic appointment:
  - a. Trained high-resolution anoscopy (HRA). UCSF HRA training program 4/05

### E. Other information:

1. **Honors or Awards: titles, dates:**
  - a. Heather Belsey Faculty Award, University of Utah 2002
  - b. MPH with Distinction 1993
  - c. Martin Luther King Community Service Award, Yale Medical School (1992)
  - d. Outstanding Reviewer Annals Internal Medicine 2007
  - e. Outstanding Reviewer Clinical Infectious Diseases Award 2008
  - f. NIH Loan Repayment Recipient 2007-2011
  - g. Baylor College of Medicine Star Clinician Award 2017
  - h. Co-Leader Mechanisms of Cancer Evolution, Dan L. Duncan NCI designated Cancer Center 2019

### F. Board Certification:

1. Texas State License Number: Physician: L8647 exp: 5/31/2021
2. New York State License Number: Physicians and Surgeons: 224503-1
3. ABIM Board Certification
  - a. Internal Medicine Boards: Certified 08/2001 Exp: 8/2011
  - b. Internal Medicine Subspecialty Oncology: Certified 11/2004 Exp: 11/2024
  - c. Internal Medicine Subspecialty Inf Dis: Certified 11/2006 Exp: 11/2026
4. Other non-academic positions:
  - a. Board Member Voices Breaking Boundaries Non-Profit



- b. Board Member of University of Houston's Friends of Women's, Gender and Sexuality Studies

## II. RESEARCH INFORMATION

### A. Research Support

#### *Current Research Funding:*

- 1. (PQ3) Identifying Novel Pharmacologic Risk factors for Common Non-AIDS Defining Cancers in Individuals with Well-controlled HIV Infection**
  - a. National Institute of Health
  - b. Principal Investigator
  - c. June 2016-March 2020
  - d. \$1,968,930
  - e. 1R01 CA206476-01
- 2. The Effectiveness of High Resolution Microendoscopy (HRME) in High Grade Intraepithelial Lesions (HSIL) Diagnosis for People Living with HIV**
  - a. National Institute of Health
  - b. Co-Principal Investigator
  - c. November 2018-November 2023
  - d. \$2,100,000
  - e. R01 CA232890
- 3. AIDS Cancer Specimen Resource**
  - a. National Institute of Health, NCI
  - b. Co-Investigator
  - c. September 2013- December 2018
  - d. \$1,747,386 over 5 years
  - e. NIH UM1CA181255
  - f. PI: M. McGrath
- 4. Texas NeuroAIDS Repository**
  - a. National Institute of Health, NIMH
  - b. Co-Investigator (Baylor Principal Investigator)
  - c. February 2018-February 2023
  - d. \$650,000 over 5 years
  - e. U24MH100930
  - f. PI: B. Gelman
- 5. Annual Anal Sampling using DNA Screening to Identify Men Who have Sex with Men at Increased Risk for Anal Cancer**
  - a. National Institute of Health, NCI
  - b. Co-investigator
  - c. Sep 2017 - Aug 2022
  - d. \$380,613
  - e. R01CA215403-01A1
  - f. PI: A. Nyitray
- 6. AIDS Malignancy Clinical Trial Consortium**
  - a. National Institute of health, NCI
  - b. Co-investigator (Baylor Principal Investigator)
  - c. August 2015- August 2020
  - d. \$ 453,000
  - e. UM1CA121974
  - f. PI: R. Mitsuyasu
- 7. Immunogenetic determinants of HPV-related head and neck cancer in Veterans**
  - a. MEDVAMC
  - b. Co-Principal Investigator
  - c. April 2018 - March 2020
  - d. \$148,169

e. VA 1 I01 BX004183-01A1

**8. Determining the accuracy of self- and partner anal exams for detecting anal abnormalities**

- a. National Institutes of Health, NCI
- b. Co-investigator
- c. Sept 2018-Aug 2023
- d. \$ 1,100,173
- e. R01CA232892-01
- f. PI: A. Nyitray

**9. Optimizing Age-Based Anal Cancer Screening Among People Living with HIV Using Decision Analytic Modeling**

- a. National Institutes of Health, NCI
- b. Co-Investigator
- c. February 2019-February 2024
- d. \$200,000
- e. 1R01CA232888-01A1
- f. PI: A. Deshmukh

**10. A Randomized Controlled Trial of Mail-Self Stamped HPV Testing to Increase Cervical Cancer Screening Participation Among Minority/Underserved Women in an Integrated Safety Net Healthcare System**

- a. National Institutes of Health, NIMHD
- b. Co-Investigator
- c. April 2019- April 2024
- d. \$140,000
- e. R01 MD013715-01
- f. PI: J. Montealegre

*Past Research Funding:*

1. Pilot Study of Valganciclovir in Patients with Classic, non-HIV-associated Kaposi's Sarcoma
  - a. Roche Pharmaceuticals
  - b. Fellow
  - c. July 2004-July 2010
  - d. \$47,000
  - e. Pharmaceutical Grant
2. The Epidemiology of HIV-related Anal Dysplasia
  - a. Baylor Seed Fund Institutional Grant
  - b. Principal Investigator
  - c. July 2007-July 2008
  - d. \$25,000 (project support only)
3. Risk of Monoclonal Gammopathy of Undetermined Significance (MGUS) and Subsequent Multiple Myeloma (MM) among African American and White Veterans in the United States
  - a. Contract
  - b. National Cancer Institute
  - c. July 2007-July 2008
  - d. \$50,000 (project support only)
4. HPV-related cancers in HIV infected veterans
  - a. Pilot funds from HSR&D
  - b. Baylor College of Medicine
  - c. Principal Investigator
  - d. January 2009-December 2009
  - e. \$10,000
5. The Epidemiologic Effects of HAART on HIV-related Anal Cancer and Anal Dysplasia
  - a. K23 Patient-Oriented Mentored Career Development Award
  - b. National Institute of Cancer, NIH
  - c. Principal Investigator
  - d. July 2006-June 2011
  - e. \$637,500 over 5 years (80% salary and project funds)

6. NIH 1 K23 CA124318-06 K23 Patient-Oriented Mentored Career Development Award Supplement
  - a. National Institute of Cancer, NIH
  - b. Principal Investigator
  - c. September 2009-August 2011
  - d. \$100,000 over 2 years (project support only)
7. Behavioral Strategies to Accrue and Retain Diverse Underserved Populations in HIV Related Malignancy Clinical Trials
  - a. Supplement to U10CA139519-01A1
  - b. Co-Investigator
  - c. September 2011-September 2013
  - d. \$80,000
8. AIDS Cancer Specimen Registry (ACSR) Pilot Funds
  - a. Pilot Funds from the ACSR
  - b. UCSF
  - c. Principal Investigator
  - d. September 2009- September 2013
  - e. \$75,000 (project support only)
9. The Effect of HAART on the Epidemiology and Molecular Pathogenesis of HIV-related Hodgkin Lymphoma
  - a. Pilot Funds from the AIDS Malignancy Consortium (AMC)
  - b. Principal Investigator
  - c. May 2011-June 2014
  - d. \$65,000
  - e. NIH P30 CA125123
10. The Feasibility of Self/Partner-Assisted Digital Anal Exams for Cancer Screening
  - a. National Cancer Institute
  - b. Co-investigator
  - c. September 2013- September 2016
  - d. \$125,000
  - e. NIH R21 CA181901
11. The Effectiveness of Screening HIV-infected Women for Anal Cancer Precursors
  - a. National Institutes of Health, NCI
  - b. Principal Investigator
  - c. September 2011- August 2016
  - d. \$120,000
  - e. NIH 1 R01 CA163103 (S1)
12. Risk and Predictors of Esophageal and Esophagogastric Junction Adenocarcinomas in HIV-Infected Individuals
  - a. National Institute of Health, NIAID
  - b. Co-investigator
  - c. June 2016-December 2018
  - d. \$475,487
  - e. P30AI027767
13. Supplement for AMC 084: The Effectiveness of Screening HIV-Infected Women for Anal Cancer Precursors
  - a. National Institute of Health, NCI
  - b. Co-investigator
  - c. Sep 2017 - Aug 2019
  - d. \$193,793
  - e. UM1CA121974

# **1. National Scientific Participation:**

- a. Journal Review editorial boards:
  - a. Ad-hoc journal reviewer, Antiviral Therapy, June 2006-present
  - b. Ad-hoc journal reviewer, Annals Internal Medicine, July 2007-present

- c. Ad-hoc journal reviewer, Clinical Infectious Disease, August 2007-present
  - d. Ad-hoc journal reviewer, International Journal of Cancer, July 2011-present
  - e. Ad-hoc journal reviewer, International Journal of Infectious Diseases, May 2013-present
  - f. Ad-hoc journal reviewer, JAIDS, March 2006-present
- b. Review panels:
- a. The Ontario HIV Network, grant review July 2006
  - b. Reviewer, Ad Hoc, American Re-investment and Renewal Acct (ARRA) AIDS Cancer Vaccines, NCI, NIH, August, 2009. Bethesda, MD
  - c. Reviewer, Ad Hoc, D43 AIDS Malignancy Training Grants in Africa, NCI, NIH February, 2010. Bethesda, MD
  - d. Reviewer, Ad Hoc, NCI: RFA CA 11-011 and 012 "Research Answers to NCI's Provocative Questions", March 26-28, 2012
  - e. Reviewer, Ad Hoc, NCI: J subcommittee-Career Development Awards, March, 2013
  - f. Reviewer, Ad Hoc, NCI J subcommittee-Career Development Awards, July, 2013
  - g. Reviewer, Ad Hoc, NCI J subcommittee-Career Development Awards, November, 2013
  - h. Reviewer, Ad Hoc, NIAID, HIV and Aging Provocative Questions, November, 2013
  - i. Reviewer, Ad Hoc, NIAID, Special Emphasis Panel, January, 2014
  - j. Reviewer, Ad Hoc, NCI: Subcommittee - HIV and AIDS Malignancy September, 2017
  - k. Reviewer Ad Hoc, NIAID HIV and Aging Special Emphasis Panel, March 2018
  - l. Reviewer, NCI U54 Prevention of HPV-related Cancers in HIV-infected individuals: United States-Latin American-Caribbean Clinical Trials Network: Partnership Centers Special Emphasis Panel, April 2019
- c. Professional societies:
- i. American Society of Clinical Oncology, 2004-current
  - ii. Infectious Diseases Society of America, 2007-current
- d. National Committees
- i. ACTG co-infections and malignancies subcommittee 2011-2014
  - ii. ACTG 5298, "A Randomized, Double-Blinded, Placebo-Controlled, Phase 3 Trial of the Quadrivalent HPV Vaccine to Prevent Anal Human Papillomavirus Infection in HIV-Infected Men and Women"
  - iii. NCI "Provocative Questions: AIDS Malignancy" Committee March, 2014
  - iv. AMC Steering Committee, Member 2016-2018
  - v. Chair, AMC Non-AIDS Defining Cancer Committee (April 2017-present)
  - vi. International Conference of HIV Malignancies (ICMH) meeting organizing committee (2017-current)
  - vii. NCI Board of Scientific Advisers, HIV Malignancies, June 2017
  - viii. Scientific Steering Committee of University of Washington /Fred Hutchinson CFAR, March 2018
  - ix. 2018 Eurogin Program Committee, March 2018
  - x. External Advisory Board Weil/Cornell CFAR, February 2019
- e. Invited lectures, presentations, research seminars:
- a. *International*
    - i. **Chiao, E.** Head and Neck Cancers in U.S. Veterans Living in HIV, IAS Mexico City 7/23/2019
    - ii. **Chiao, E.** Screening HIV-infected Women for Anal Cancer Precursors, Eurogin, Salzburg, Austria 6/10-6/13/2016
    - iii. **Chiao, E.** Screening People Living with HIV for Anal Cancer, Eurogin, Lisbon, Portugal 12/3-12/15/2018
  - b. *National*
    - 1) **Chiao, E.** Co-Chair: International Conference on HIV-related Malignancies, Outcome Disparities of HIV-associated Malignancies, Bethesda, MD, October 21-22, 2019

- 2) **Chiao, E.** A Multi-Disciplinary Approach to Optimizing and Advancing Cancer Care for People Living with HIV, CFAR Seminar, University of Washington, Seattle WA July 11, 2019
- 3) **Chiao, E.** Co-Chair: International Conference on HIV-related Malignancies, Epidemiology of HIV-associated Malignancies, Bethesda, MD, October 22-24, 2017
- 4) **Chiao, E.** Co-Chair: Conference on Retroviruses and Opportunistic Infections (CROI): HPV-related malignancies, February 28-March 3, 2013, Atlanta, GA
- 5) **Chiao, E.** Chair person: AACR Annual Meeting, HIV Malignancies: Current Dilemmas and Future Directions, March 31-April 4, 2012, Chicago, IL.
- 6) **Chiao, E.** HIV- Related Anal Cancer and Cancer Precursors in the HAART Era, Association of Nurses in AIDS Care yearly meeting, September 26, 2008.

c. *Local*

1. **Chiao, E.** MD Anderson Cancer Center Institutional Grand Rounds: HIV and Malignancies, 5/18/2018
2. **Chiao, E.** Screening HIV-infected Individuals for Anal Cancer Precursors: What is the Evidence. Southern AIDS Education and Training Conference, 2/20/2018
3. **Chiao, E.** Viral and Molecular Oncogenesis Program meeting: "Evidence for screening HIV-infected women for anal cancer precursors", 5/18/2011, 5/15/2016.
4. **Chiao, E.** TSH-HCHD HIV Conference 2017: Anal Cancer and HIV, 4/30/2017.
5. **Chiao, E.** CFAR AIDS Research Forum: Human Papilloma Virus and Cancer in HIV-positive Patients, 8/18/17.

## 2. Publications

a. Full papers in Peer Review Journals:

I. Published

- 1) Clark E, Royse KE, Dong Y, Chang E, Raychaudhury S, Kramer J, White DL, Chiao E. Stable Incidence and Poor Survival for HIV-Related Burkitt Lymphoma Among the U.S. Veteran Population During the Anti-Retroviral Era. *J Acquir Immune Defic Syndr.* 2020 Jan 27. doi: 10.1097/QAI.0000000000002303. [Epub ahead of print] PubMed PMID: 31977597.
- 2) Stier EA, Abbasi W, Agyemang AF, Valle Álvarez EA, Chiao EY, Deshmukh AA. Recurrence of Anal High-Grade Squamous Intraepithelial Lesions among Women Living with HIV. *J Acquir Immune Defic Syndr.* 2020 Jan 16. doi: 10.1097/QAI.0000000000002304. [Epub ahead of print] PubMed PMID: 31977596.
- 3) Nyitray AG, D'Souza G, Stier EA, Clifford G, Chiao EY. The Utility of Digital Anal Rectal Examinations in a Public Health Screening Program for Anal Cancer. *J Low Genit Tract Dis.* 2020 Jan 16. doi: 10.1097/LGT.0000000000000508. [Epub ahead of print] PubMed PMID: 31972661.
- 4) Sandulache VC, Wilde DC, Sturgis EM, Chiao EY, Sikora AG. A Hidden Epidemic of "Intermediate Risk" Oropharynx Cancer. *Laryngoscope Investig Otolaryngol.* 2019 Oct 17;4(6):617-623. doi: 10.1002/liv.2.316. eCollection 2019 Dec. Review. PubMed PMID: 31890879; PubMed Central PMCID: PMC6929570.
- 5) Sandulache VC, Lei YL, Heasley LE, Chang M, Amos CI, Sturgis EM, Graboyes E, **Chiao EY**, Rogus-Pulia N, Lewis J, Madabhushi A, Frederick MJ, Sabichi A, Ittmann M, Yarbrough WG, Chung CH, Ferrarotto R, Mai W, Skinner HD, Duvvuri U, Gerngross P, Sikora AG. Innovations in risk-stratification and treatment of Veterans with oropharynx cancer; roadmap of the 2019 Field Based Meeting. *Oral Oncol.* 2019 Oct 21:104440. doi: 10.1016/j.oraloncology.2019.104440. [Epub ahead of print] PubMed PMID: 31648864.
- 6) White, DL; Oluyomi, A; Royse, K.; Dong, Y, Nguyen, H; Chang, E, Richardson, P; Jiao, L; Garcia, J.; Kramer, JR.; Thrift, A, **Chiao, EY**, Incidence of AIDS-related Kaposi Sarcoma in all 50 United States from 2000 to 2014. *JAIDS.* 2019 Aug 1;81(4):387-394. doi: 10.1097/QAI.0000000000002050. PMID: 31242141
- 7) Stier, A., Lensing, S., Darragh, M., Deshmukh, A., Einstein, M., Palefsky, J., Jay, N. Berry-Lawhorn, J.M., Wilkin, T., Wiley, D., Barroso, L., Cranston, R., Levine, R., Guiot, H., French, A., Citron, D., Rezaei, M.K., Goldstone, S., **Chiao, E.** Prevalence of and risk factors for anal high-



- grade squamous intraepithelial lesions in women living with HIV. Clin Infect Dis. 2019 Jul 11. pii: ciz408. doi: 10.1093/cid/ciz408. Epub ahead of print. PMID: 31292602
- 8) Kramer J, Hartman C, White DL, Royse K, Richardson P, Thirft A, Raychaudhury S, Desiderio R, Sanchez D, **Chiao E**. Validation of HIV cohort identification using automated clinical data in the Department of Veterans Affairs. HIV Medicine. 2019 May 26. doi: 10.1111/hiv.12757. Epub ahead of print. [PMID: 31131549](#)
  - 9) El-Mallawany N, Kamiyango W, Villier J, Peckham-Gregory E, Scheurer M, McAtee C, Allen C, Kovarik C, Frank D, Eason A, Caro-Vegas C, Chiao E, Schutze G, Ozuah N, Mehta P, Kazembe P, Dittmer D. Kaposi Sarcoma Herpesvirus Inflammatory Cytokine Syndrome (KICS)-like Clinical Presentation in HIV-Infected Children in Malawi. Clin Infect Dis. 2019 Mar 22 pii: ciz250. doi: 10.1093/cid/ciz250. Epub ahead of print. [PMID: 31102440](#).
  - 10) Thrift AP, Kramer JR, Hartman CM, Royse K, Richardson P, Dong Y, Raychaudhury S, Desiderio, R, Sanchez D, Anandasabapathy S, White DL, **Chiao EY**. Risk and Predictors of Esophageal and Stomach Cancers in HIV-infected Veterans: A Matched Cohort Study. J Acquir Immune Defic Syndr. 2019 Mar 29. Epub ahead of print. [PMID: 30939533](#)
  - 11) Harms A, Kansara S, Stach C, Richardson P, Chen G, Lai S, Sikora AG, Parke R, Donovan D, **Chiao E**, Skinner H, Sandulache VC. Swallowing Function in Survivors of Oropharyngeal Cancer Is Associated With Advanced T Classification. Ann Otol Rhinol Laryngol 2019 Mar 27;3489419839091. doi: 10.1177/0003489419839091. Epub ahead of print [PMID:30913911](#)
  - 12) Fokom Domgue J, Messick C, Milbourne A, Guo M, Salcedo MP, Dahlstrom KR, **Chiao EY**, Deshmukh AA, Sturgis EM, Schmeler KM. Prevalence of high-grade anal dysplasia among women with high-grade lower genital tract dysplasia or cancer: Results of a pilot study. Gynecologic Oncology. 2019 Mar 1. Doi: 10.1016/j.ygyno. Epub ahead of print. [PMID: 30827725](#)
  - 13) Kahn JA, Belzer M, Chi X, Lee J, Gaur AH, Mayer K, Martinez J, Futterman DC, Stier EA, Paul ME, **Chiao EY**, Reirden D, Goldstone SE, Ortiz Martinez AP, Cachay ER, Barroso LF, Da Costa M, Wilson CM, Palefsky JM; AIDS Malignancy Consortium and Adolescent Medicine Trials Network for HIV/AIDS Interventions. Pre-vaccination prevalence of anogenital and oral human papillomavirus in young HIV-infected men who have sex with men. Papillomavirus Res. 2019 Jan 15;7:52-61. doi: 10.1016/j.pvr.2019.01.002. Epub ahead of print. [PMID: 30658128](#)
  - 14) Badr, H, Herbert, K, Chhabria, K, Sandulache, V, Bobby R, **Chiao, E**, Wagner, T. Couple-Based Self-Management for Head and Neck Cancer: Results of A Randomized Pilot Trial. Cancer. 2018 Dec 6. doi: 10.1002/cncr.31906. [PMID: 30521075](#)
  - 15) Hicks, JT, Hwang, LY, Barnaiuk ,S, White, M, **Chiao, EY**, Onwuka, N, Ross, MW, Nyitray, AG. Factors associated with self-reported anal cancer screening history in men who have sex with men. Sex Health. 2018 Dec 6. Doi: 10.1071/SH18D39. [PMID: 30517839](#)
  - 16) El-Mallawany,N, Villiera, J, Kamiyango, W, Peckham-Gregory, E, Scheurer, M, Allen,C, McAtee, C, Legarreta, A, Dittmer, D, Kovarik, C, **Chiao, E**, Martin,S, Ozuah,N, Mehta,P, Kazembe, P. Endemic Kaposi Sarcoma in HIV-Negative Children and Adolescents: An Evaluation of Overlapping and Distinct Clinical Features in Comparison with HIV-Related Disease. Infectious Agents and Cancer. Infect Agent Cancer.2018 Nov9; 13:33. doi:10.1186/s1307-018-0207-4. eCollection 2018. [PMID: 30455728](#); [PMCID: PMC6230225](#)
  - 17) Richardson P, Kansara S, Chen G, Sabichi A, Sikora A, Parke R, Donovan D, **Chiao E**, Sandulache V. [Treatment Patterns in Veterans with Laryngeal and Oropharyngeal Cancer and Impact on Survival](#). Laryngoscope Invest Otolaryngol. 2018 Aug 9;3(4):275-282. doi: 10.1002/lio2.170. eCollection 2018 Aug. [PMID: 30186958](#) ; [PMCID: PMC6119785](#)
  - 18) Suk,R, Mahale,P, Sonawane, P, Sikora,A, Chhatwal, J, Schmeler, K, Sigel, K, Cantor, S, **Chiao, E\*** , Deshmukh, A\*. Trends in risks for second primary cancers associated with index Human Papillomavirus-Associated cancers. JAMA Network Open. 2018;1(5) e181999. doi:10.1001/jamanetworkopen.2018.1999. [PMID: 30646145](#) ; [PMCID: PMC6324459](#)
  - 19) Bender Ignacio R, Lin L, Rajdev L, **Chiao E**. Evolving Paradigms in HIV Malignancies: Review of Ongoing Clinical Trials. Journal of the National Comprehensive Cancer Network : JNCCN. 2018;16(8):1018-1026. doi:10.6004/jnccn.2018.7064. [PMID: 30099376](#); [PMCID: PMC6109631](#)
  - 20) Oseso LN, **Chiao EY**, Ignacio RAB. Evaluating Antiretroviral Therapy Initiation in HIV-Associated Malignancy: Is There Enough Evidence to Inform Clinical Guidelines? Send to J Natl Compr Canc Netw. 2018 Aug;16(8);927-932. doi: 10.6004/jnccn.2018.7057. [PMID: 30099368](#) ; [PMCID: PMC6207434](#)



- 21) Chang E, Sabichi AL, Kramer JR, Hartman C, Royse KE, White DL, Patel NR, Richardson P, Yellapragada SV, Garcia JM, **Chiao EY**. Nivolumab Treatment for Cancers in the HIV-infected Population. *J Immunother*. 2018 Jul 16. doi: 10.1097/CJI.0000000000000240. [Epub ahead of print] [PMID: 30020193](#) ; [PMCID: PMC6128753](#)
- 22) Chang E, Mapakshi SR, Mbang P, El-Mallawany NK, Kramer JR, White DL, **Chiao EY**. The impact of protease inhibitors on HIV-associated Kaposi sarcoma incidence: a systematic review. *J Acquir Immune Defic Syndr*. 2018 Jul 6. doi: 10.1097/CJI.0000000000000240 [Epub ahead of print.] [PMID: 29985803](#)
- 23) Deshmukh AA, Shirvani SM, Likhacheva A, Chhatwal J, **Chiao EY**, Sonawane K. The Association Between Dietary Quality and Overall and Cancer-Specific Mortality Among Cancer Survivors, NHANES III. *JNCI Cancer Spectr*. 2018 Apr;2(2):pky022. doi: 10.1093/jncics/pky022. Epub 2018 Jun 5. [PMID: 29905226](#) ; [PMCID: PMC5989369](#)
- 24) Thrift AP, **Chiao EY**. Are Non-HIV Malignancies Increased in the HIV-Infected Population? *Curr Infect Dis Rep*. 2018 May 26;20(8):22. doi: 10.1007/s11908-018-0626-9. Review. [PMID: 29804238](#)
- 25) Wilkin TJ, Chen H, Cespedes MS, Leon-Cruz JT, Godfrey C, **Chiao EY**, Bastow B, Webster-Cyriaque J, Feng Q, Dragavon J, Coombs RW, Presti RM, Saah A, Cranston RD. A randomized, placebo-controlled trial of the quadrivalent HPV vaccine in HIV-infected adults age 27 or older: AIDS Clinical Trials Group protocol A5298. *Clin Infect Dis*. 2018 Apr 5. doi: 10.1093/cid/ciy274. [Epub ahead of print] [PMID: 29659751](#) ; [PMCID: PMC6186857](#)
- 26) Cranston RD, Cespedes MS, Paczuski P, Yang M, Coombs RW, Dragavon J, Saah A, Godfrey C, Webster-Cyriaque JY, **Chiao EY**, Bastow B, Wilkin T; ACTG 5298 Study Team. High Baseline Anal Human Papillomavirus and Abnormal Anal Cytology in a Phase 3 Trial of the Quadrivalent Human Papillomavirus Vaccine in Human Immunodeficiency Virus-Infected Individuals Older Than 26 Years: ACTG 5298. *Sex Transm Dis*. 2018 Apr;45(4):266-271. doi: 10.1097/OLQ.0000000000000745. [PMID: 29528986](#) ; [PMCID: PMC5868482](#)
- 27) Hwang JP, Ahmed S, Ariza-Heredia EJ, Duan Z, Zhao H, Schmeler KM, Ramondetta L, Parker SL, Suarez-Almazor ME, Ferrajoli A, Shih YT, Giordano SH, **Chiao EY**. Low rate of cervical cancer screening among women with hematologic malignancies after stem cell transplant. *Biol Blood Marrow Transplant*. 2018 May;24(5):1094-1098. doi: 10.1016/j.bbmt.2018.01.019. Epub 2018 Feb 9. [PMID: 29378304](#)
- 28) Chang E, Rivero G, Patel N, **Chiao E**, Lai S, Bajaj K, Mbue J, Yellapragada S. HIV-Related Refractory Hodgkin Lymphoma: A Case Report of Complete Response to Nivolumab. *Clin Lymphoma Myeloma Leuk*. 2018 Feb;18(2):e143-e146. doi: 10.1016/j.clml.2017.12.008. Epub 2018 Jan 3. [PMID: 29342442](#) ; [PMCID: PMC5809264](#)
- 29) Stier EA, **Chiao EY**. Anal Cancer and Anal Cancer precursors in Women with a History of HPV-Related Dysplasia and Cancer. *Semin Colon Rectal Surg*. 2017 Jun;28(2):97-101. doi: 10.1053/j.scrs.2017.04.008. Epub 2017 Apr 26. [PMID:29204065](#) ; [PMCID: PMC5710808](#)
- 30) Sonawane K, Suk R, **Chiao EY**, Chhatwal J, Qiu P, Wilkin T, Nyitray AG, Sikora AG, Deshmukh AA. Oral Human Papillomavirus Infection: Differences in Prevalence Between Sexes and Concordance with Genital Human Papillomavirus Infection, NHANES 2011 to 2014. *Ann Intern Med*. 2017 Nov 21;167(10):714-724. doi: 10.7326/M17-1363. Epub 2017 Oct 17 [PMID:29049523](#) ; [PMCID: PMC6203692](#)
- 31) Deshmukh AA, **Chiao EY**, Cantor SB, Stier EA, Goldstone SE, Nyitray AG, Wilkin T, Wang X, Chhatwal J. Management of precancerous anal intraepithelial lesions in HIV-positive MSM: clinical and cost-effectiveness. *Cancer*. 2017 Dec 1;123(23):4709-4719. doi: 10.1002/cncr.31035. Epub 2017 Sep 26. [Available on 2018-12-01] [PMID: 28950043](#) ; [PMCID: PMC5693634](#)
- 32) Biggerstaff KS, Frankfort BJ, Orengo-Nania S, Garcia J, **Chiao E**, Kramer JR, White D. Validity of code based algorithms to identify primary open angle glaucoma (POAG) in Veterans Affairs (VA) administrative databases. *Ophthalmic Epidemiol*. 2018 Apr;25(2):162-168. doi: 10.1080/09286586.2017.1378688. Epub 2017 Sep 25. [PMID: 28945495](#)
- 33) Nyitray AG, Hicks JT, Hwang L-Y, Baraniuk S, White M, Millas S, Onwuka N, Zhang X, Brown EL, Ross MW, **Chiao EY**. A Phase II clinical study to assess the feasibility of self- and partner anal exams to detect anal canal abnormalities including anal cancer. *Sex Transm Infect*. 2018 Mar;94(2):124-130. doi: 10.1136/sextrans-2017-053283. Epub 2017 Aug 23. [PMID: 28835533](#) ; [PMCID: PMC6173609](#)

- 34) Royse KE, El Chaer F, Amirian ES, Hartman C, Krown SE, Uldrick TS, Lee JY, Shepard Z, **Chiao EY**. Disparities in Kaposi Sarcoma Incidence and Survival in the United States: 2000-2013. *PLoS One*. 2017 Aug 22;12(8):e0182750. doi: 10.1371/journal.pone.0182750. eCollection 2017. [PMID: 28829790](#); [PMCID: PMC5567503](#)
- 35) Deshmukh AA, Cantor SB, Fenwick E, **Chiao EY**, Nyitray AG, Stier EA, Goldstone SE, Wilkin T, Chhatwal J. Adjuvant HPV vaccination for anal cancer prevention in HIV-positive men who have sex with men: The time is now. *Vaccine*. 2017 Sep 12;35(38):5102-5109. doi: 10.1016/j.vaccine.2017.08.006. Epub 2017 Aug 12. [PMID: 28807605](#); [PMCID: PMC5581672](#) [Available on 2018-09-12]
- 36) Butame SA, Lawler S, Hicks JT, Wilkerson JM, Hwang LY, Baraniuk S, Ross MW, **Chiao EY**, Nyitray AG. (2017). A qualitative investigation among men who have sex with men on the acceptability of performing a self- or partner anal exam to screen for anal cancer. *Cancer Causes Control*. 2017 Oct;28(10):1157-1166. doi: 10.1007/s10552-017-0935-6. Epub 2017 Aug 4. [Available on 2018-10-01]. [PMID: 28779467](#); [PMCID: PMC5731636](#)
- 37) Chew EY, Hartman CM, Richardson PA, Zevallos JP, Sikora AG, Kramer JR, **Chiao EY**. Risk factors for oropharynx cancer in a cohort of HIV-infected veterans. *Oral Oncol*. 2017 May;68:60-66. doi: 10.1016/j.oraloncology.2017.03.004. Epub 2017 Mar 23. [PMID: 28438295](#) ; [PMCID: PMC6365160](#)
- 38) Kahn JA, Lee J, Belzer M, Palefsky JM, **AIDS Malignancy Consortium and Adolescent Medicine Trials Network for HIV/AIDS Interventions (Chiao EY is listed as a senior author of this group)**. HIV-Infected Young Men Demonstrate Appropriate Risk Perceptions and Beliefs about Safer Sexual Behaviors after Human Papillomavirus Vaccination. *AIDS Behav*. 2017 Feb 20 [Epub ahead of print] PubMed [Available on 2018-08-20] [PMID: 28220313](#); [PMCID: PMC5563486](#)
- 39) Oliver NT, **Chiao EY**. Malignancies in women with HIV infection. *Curr Opin HIV AIDS*. 2017 Jan;12(1):69-76. [PMID: 27849632](#) ; [PMCID: PMC5568069](#)
- 40) Nyitray A, **Chiao E**. Maybe it isn't time to abandon the digital rectal exam for all conditions. *Curr Med Res Opin*. 2017 Feb;33(2):315-316. doi: 10.1080/03007995.2016.1254608. Epub 2016 Dec 8. [PMID: 27805418](#)
- 41) Deshmukh AA, Zhao H, Das P, **Chiao EY**, You YN, Franzini L, Lairson DR, Swartz MD, Giordano SH, Cantor SB. Clinical and economic evaluation of treatment strategies for T1N0 anal canal cancer. *Am J Clin Oncol*. 2016 Oct 17. [Epub ahead of print]. [PMID: 27755059](#); [PMCID: PMC5393969](#)
- 42) Oliver, NT, Hartman, CM, Kramer, JR, **Chiao, EY**. Statin drugs decrease progression to cirrhosis in HIV/hepatitis C virus coinfecting individuals. *AIDS*. 2016 Oct 23;30(16):2469-2476. [PMID:27753678](#); [PMCID: PMC5290260](#);
- 43) [Lai S, Wenaas AE, Sandulache VC, Hartman C, Chiao E, Kramer J, Zevallos JP](#). Prognostic Significance of p16 Cellular Localization in Oropharyngeal Squamous Cell Carcinoma. *Ann Clin Lab Sci*. 2016 Mar;46(2):132-9. [PMID:27098618](#)
- 44) Varier I, Keeley BR, Krupar R, Patsias A, Dong J, Gupta N, Parasher AK, Genden E, Miles B, Teng M, Bakst RL, Gupta V, Misiukiewicz K, **Chiao E**, Scheurer M, Laban S, Zhang DY, Ye F, Cui M, Demicco EG, Posner MR, Sikora A. Clinical Characteristics and Outcomes of Oropharyngeal Carcinoma Related to High Risk Non-HPV16 Viral Subtypes. *Head Neck*. 2016 Sep;38(9):1330-7. doi: 10.1002/hed.24442. Epub 2016 Apr 15. [PMID:27080140](#)
- 45) Mbang PA, Kowalkowski MA, Amirian ES, Giordano TP, Richardson PA, Hartman CM, **Chiao EY**. Association between Time on Protease inhibitors and the Incidence of Squamous Cell Carcinoma of the Anus among U.S. Male Veterans. *PLoS One*. 2015 Dec 2;10(12):e0142966. doi: 10.1371/journal.pone.0142966. [PMID:26629701](#); [PMCID:PMC4668039](#)
- 46) Deshmukh AA, Zhao H, Franzini L, Lairson DR, **Chiao EY**, Swartz MD, Das P, Giordano SH, Cantor SB. Total Lifetime and Cancer-related Costs for Elderly Patients Diagnosed with Anal Cancer in the United States. *Am J Clin Oncol*. 2015 Oct 29. [Epub ahead of print] [PMID:26523440](#) ; [PMCID: PMC5592145](#);
- 47) **Chiao E**, Stier EA. Reply. *Am J Obstet Gynecol*. 2016 Mar;214(3):411-2. doi: 10.1016/j.ajog.2015.10.917. Epub 2015 Oct 30. [PMID: 26522860](#)
- 48) Battaglia TA, Gunn CM, McCoy ME, Mu HH, Baranoski AS, **Chiao EY**, Kachnic LA, Stier EA. Beliefs About Anal Cancer among HIV-Infected Women: Barriers and Motivators to Participation

- in Research. Womens Health Issues. 2015 Nov-Dec;25(6) :720-6. doi:10.1016/j.whi.2015.06.008. Epub 2015 Aug 4. [PMID:26253825](#); [PMCID:PMC4641840](#)
- 49) Hwang JP, Granwehr BP, Torres HA, Suarez-Almazor ME, Giordano TP, Barbo AG, Lin HY, Fish MJ, **Chiao EY**. HIV testing in patients with cancer at the initiation of therapy at a large US comprehensive cancer center. J Oncol Pract. 2015 Sep;11(5):384-90. doi: 10.1200/JOP.2015.005116. Epub 2015 Aug 4. [PMID:26243649](#) ; [PMCID:PMC4575402](#)
  - 50) Deshmukh AA, Chhatwal J, **Chiao EY**, Nyitray A, Das P, Cantor SB. Long-term outcomes of adding HPV vaccine to the anal intraepithelial neoplasia treatment regimen in HIV-positive men who have sex with men. Clin Infect Dis. 2015 Jul 29. pii: civ628. [PMID:26223993](#); [PMCID:PMC4614412](#)
  - 51) Robinson JO, Slashinski MJ, **Chiao E**, McGuire AL. It depends whose data are being shared; considerations for genomic data sharing policies. J Law Biosci. 2015 jul 21;2(3):697-704. doi: 10.1093/jlb/lsv030. eCollection 2015 Nov. [PMID: 27774218](#) ; [PMCID: PMC5034404](#);
  - 52) Moscicki A, Darragh TM, Berry-Lawhorn JM, Roberts JM, Khan MJ, Boardman LA, **Chiao E**, Einstein MH, Goldstone SE, Jay N, Likes WM, Stier EA, Welton ML, Wiley DJ, Palefsky JM. Screening for Anal Cancer in Women. J Low Genit Tract Dis. 2015 Jul;19(3 Suppl 1):S26-41. doi:10.1097/LGT.0000000000000117. [PMID:26103446](#); [PMCID:PMC4479419](#)
  - 53) Stier EA, Sebring MC, Mendez AE, Ba FS, Trimble DD, **Chiao EY**. Prevalence of anal human papillomavirus infection and anal HPV-related disorders in women: a systematic review. Am J Obstet Gynecol. 2015 Sep;213(3):278-309. doi: 10.1016/j.ajog.2015.03.034. Epub 2015 Mar 19. [PMID:25797230](#); [PMCID:PMC4556545](#)
  - 54) Kowalkowski MA, Kramer JR, Richardson PR, Suteria I, **Chiao EY**. Use of boosted protease inhibitors reduces Kaposi sarcoma incidence among male veterans with HIV Infection. Clin Infect Dis. 2015 May 1;60(9):1405-14. doi:10.1093/cid/civ012. Epub 2015 Jan 13. [PMID:25586682](#); [PMCID:PMC4462659](#)
  - 55) Kim MH, Ahmed S, Hosseinipour MC, Giordano TP, **Chiao EY**, Yu X, Nguyen C, Chimbwandira F, Kazembe PN, Abrams EJ. Implementation and operational research: The impact of Option B+ on the antenatal PMTCT cascade in Lilongwe, Malawi. J Acquir Immune Defic Syndr. 2015 Apr 15;68(5):e77-83. doi:10.1097/QAI.0000000000000517. [PMID:25585302](#); [PMCID:PMC4359035](#)
  - 56) Ahmed S, Kim M, Dave A, Sabelli R, Kanjelo K, Preidis G, Giordano TP, **Chiao EY**, Hoessinipour M, Kazembe P, Chimbwandira F, Abrams E. Improved identification and enrollment into care of HIV-exposed and infected infants and children following a community health worker intervention in Lilongwe, Malawi. J Int AIDS Soc. 2015 Jan 7;18(1)19305. doi:10.7448/IAS.18.1.19305. eCollection 2015. [PMID: 25571857](#); [PMCID:PMC4287633](#)
  - 57) Kramer JR, Kowalkowski MA, Duan Z, **Chiao EY**. The Effect of HIV Viral Control on the Incidence of Hepatocellular Carcinoma in Veterans with Hepatitis C and HIV Coinfection. J Acquir Immune Defic Syndr. 2015 Apr 1;68(4):456-62. doi:10.1097/QAI.0000000000000494. [PMID:25559606](#); [PMCID:PMC4334674](#)
  - 58) Dailey Garnes NJ, D'Souza G, **Chiao E**. Number of Primary Care Visits Associated with Screening for Cervical Dysplasia among Women with HIV Infection in Harris County, Texas, United States of America. HIV Adv Res Dev. 2015;1(2). pii: 107. Epub 2015 Feb 16. [PMID:27500276](#); [PMCID:PMC4974513](#)
  - 59) Deshmukh AA, **Chiao EY**, Das P, Cantor SB. Clinical effectiveness and cost-effectiveness of quadrivalent human papillomavirus vaccination in HIV-negative men who have sex with men to prevent recurrent high-grade anal intraepithelial neoplasia. Vaccine. 2014 Nov;32(51):6941-6947 doi:10.1016/j.vaccine.2014.10.052. [PMID:25444820](#); [PMCID:PMC4254641](#)
  - 60) Zevallos JP, Hartman CM, Kramer JR, Strugis EM, **Chiao EY**. Increased Thyroid Cancer Incidence Corresponds to Increased Utilization of Thyroid Ultrasound and Fine Needle Aspiration: A Population-based Study in the Veterans Affairs Healthcare System. [Cancer](#). 2014 Nov 6. doi: 10.1002/cncr.29122. [PMID:25376872](#)
  - 61) Luu HN, Amirian ES, **Chiao EY**, Scheurer ME. Age patterns of Kaposi's sarcoma incidence in a cohort of HIV-infected men. Cancer Med. 2014 Aug 20. doi: 10.1002/cam4.312. [PMID:25139791](#); [PMCID:PMC4298390](#)
  - 62) Kowalkowski M, Day R, Du X, Chan W, **Chiao E**. Cumulative HIV Viremia and Non-AIDS-Defining Malignancies Among a Sample of HIV-Infected Male Veterans. J Acquir Immune Defic Syndr. 2014 Jul 30. [PMID:25078536](#); [PMCID:PMC4162758](#)



- 63) Zevallos JP, Sandulache VC, Hamblin J, Skinner HD, Kramer J, Hartman CM, Horter KL, Lai S, Zhou X, **Chiao EY**. The impact of race on oropharyngeal squamous cell carcinoma presentation and outcomes among veterans. *Head Neck*. 2016 Jan;38(1):44-50. doi: 10.1002/hed.23836. Epub 2015 Jan 27. [PMID:24992520](#)
- 64) Kowalkowski MA, Mims MA, Day RS, Du XL, Chan W, **Chiao EY**. Longer duration of combination antiretroviral therapy reduces the risk of Hodgkin lymphoma: A cohort study of HIV-infected male veterans. *Cancer Epidemiol*. 2014 Aug;38(4):386-92. doi: 10.1016/j.canep.2014.05.009. Epub 2014 Jun 16. [PMID:24947588](#); [PMCID:PMC4447432](#)
- 65) Sandulache VC, Hamblin J, Lai S, Pezzi T, Skinner HD, Khan NA, Dioun SM, Hartman C, Kramer J, **Chiao E**, Zhou X, Zevallos JP. Oropharyngeal squamous cell carcinoma (OPSCCA) in the veteran population is associated with traditional carcinogen exposure and poor clinical outcomes. *Head Neck*. 2014 May 7; [PMID:24801106](#); [PMCID:PMC4496314](#)
- 66) Dinardo AR, Lewis DS, Koo HL, Goodman JC, **Chiao E**, Andrade R. Paradoxical immune reconstitution inflammatory syndrome due to toxoplasmic encephalitis: two cases and review of initiation of antiretroviral timing in toxoplasmic encephalitis IRIS. *F1000Res*. 2013 May 30;2. doi: 10.12688/f1000research.2-133. [PMID:24358883](#); [PMCID:PMC3814919](#)
- 67) Valentin L, Dinardo A, **Chiao E**, Woc-Colburn L, Nachiappan A. Tuberculosis IRIS a mediastinal problem. *F1000Res*. 2013 Feb 18;2. doi: 10.12688/f1000research.2-54 [PMID:24358876](#); [PMCID:PMC3799548](#)
- 68) Kowalkowski MA, Lulla P, Mims MP, Amirian ES, **Chiao EY**. Effect of Immune Reconstitution on the Incidence of HIV-Related Hodgkin Lymphoma. *PLoS One*. 2013 Oct 2;8(10):e77409. doi: 10.1371/journal.pone.0077409. [PMID:24098586](#) ; [PMCID:PMC3788758](#)
- 69) Kim MH, Ahmed S, Preidis GA, Abrams EJ, Hosseinipour MC, Giordano TP, **Chiao EY**, Paul ME, Bhalakia A, Nanthuru D, Kazembe PN. Low Rates of Mother-to-Child HIV Transmission in a Routine Programmatic Setting in Lilongwe, Malawi. *PLoS One*. 2013 May 31;8(5):e64979. [PMID:23741437](#); [PMCID:PMC3669205](#)
- 70) Amirian ES, **Chiao EY**, Hill KT, Marquez-Do D, Scheurer ME. Preliminary findings from a pilot study on the effects of interferon- $\alpha$  treatment on human papillomavirus infection in HIV and hepatitis C virus co-infected men. *Sexual health*. 2013 November 22; 10(6):570-570 <https://doi.org/10.1071/SHv10n6ab2>
- 71) **Chiao EY**, Hartman CM, El-Serag HB , Giordano TP. The Impact of HIV Viral Control on the Incidence of HIV-Associated Anal Cancer. 2013 Apr 22 *JAIDS* [PMID:23614995](#); [PMCID:PMC3797186](#)
- 72) Amirian ES, Fickey PA Jr, Scheurer ME, **Chiao EY**. Anal Cancer Incidence and Survival: Comparing the Greater San-Francisco Bay Area to Other SEER Cancer Registries. *PLoS One*. 2013;8(3):e58919. doi: 10.1371/journal.pone.0058919. [PMID:23484057](#); [PMCID:PMC3590168](#)
- 73) Betancourt EM, Wahbah MM, Been LC, **Chiao EY**, Citron DR, Laucirica R. Anal cytology as a predictor of anal intraepithelial neoplasia in HIV-positive men and women. *Diagn Cytopathol*. 2013 Jan 3. doi: 10.1002/dc.22941. [PMID:23288861](#)
- 74) Kim M, Ahmed S, Buck W, Preidis G, Hosseinipour M, Bhalakia A, Nanthuru D, Kazembe P, Chimbwandira F, Giordano T, **Chiao E**, Schutze G, Kline M, The Tingathe program: a pilot intervention using community health workers to create a continuum of care in the Prevention of Mother to Child Transmission of HIV (PMTCT) cascade of services in Malawi, *Journal International AIDS Society*. 2012 Jul 11;15(4):1-11 [PMID:22789644](#); [PMCID:PMC3499848](#)
- 75) **Chiao EY**, Nambi PV, Naik AD. The impact of diabetes process and outcome quality measures on overall survival in patients with co-morbid colorectal cancer. *J Cancer Surviv*. 2010 Dec;4(4):381-7. [PMID:20721633](#); [PMCID:PMC3175493](#)
- 76) **Chiao EY**, Dezube BJ, Krown SE, Wachsman W, Brock MV, Giordano TP, Mitsuyasu R, Pantanowitz L. Time for oncologists to opt in for routine opt-out HIV testing? *JAMA*. 2010 Jul 21;304(3):334-9. [PMID:20639567](#); [PMCID:PMC3160789](#)
- 77) **Chiao EY**, Engels EA, Kramer JR, Pietz K, Henderson L, Giordano TP, Landgren O. Risk of immune thrombocytopenic purpura and autoimmune hemolytic anemia among 120 908 US veterans with hepatitis C virus infection. *Arch Intern Med*. 2009 Feb 23;169(4):357-63. [PMID:19237719](#); [PMCID:PMC2782638](#)

- 78) **Chiao EY**. Duration of anal human papilloma virus infection among immunocompetent women: clues to anal cancer epidemiology and possible prevention strategies. [Clin Infect Dis](#). 2009 Mar 1;48(5):547-9. [PMID:19191637](#)
- 79) El-Serag HB, Engels EA, Landgren O, **Chiao E**, Henderson L, Amaratunge HC, Giordano TP. Risk of hepatobiliary and pancreatic cancers after hepatitis C virus infection: A population-based study of U.S. veterans. [Hepatology](#). 2009 Jan;49(1):116-23. [PMID:19085911](#); [PMCID:PMC2719902](#)
- 80) Davila JA, **Chiao EY**, Hasche JC, Petersen NJ, McGlynn KA, Shaib YH. Utilization and determinants of adjuvant therapy among older patients who receive curative surgery for pancreatic cancer. [Pancreas](#). 2009 Jan;38(1):e18-25. [PMID:18797424](#); [PMCID:PMC3835699](#)
- 81) **Chiao EY**, Giordano TP, Richardson P, El-Serag HB. Human immunodeficiency virus-associated squamous cell cancer of the anus: epidemiology and outcomes in the highly active antiretroviral therapy era. [J Clin Oncol](#). 2008 Jan 20;26(3):474-9. [PMID:18202423](#)
- 82) Arora A, **Chiao E**, Tying SK. AIDS malignancies. [Cancer Treat Res](#). 2007;133:21-67. [PMID:17672037](#)
- 83) Giordano TP, Henderson L, Landgren O, **Chiao EY**, Kramer JR, El-Serag H, Engels EA. Risk of non-Hodgkin lymphoma and lymphoproliferative precursor diseases in US veterans with hepatitis C virus. [JAMA](#). 2007 May 9;297(18):2010-7. [PMID:17488966](#)
- 84) **Chiao EY**, Giordano TP, Palefsky JM, Tying S, El Serag H. Screening HIV-infected individuals for anal cancer precursor lesions: a systematic review. [Clin Infect Dis](#). 2006 Jul 15;43(2):223-33. Review. [PMID:16779751](#)
- 85) **Chiao EY**, Krown SE, Stier EA, Schrag D. A population-based analysis of temporal trends in the incidence of squamous anal canal cancer in relation to the HIV epidemic. [J Acquir Immune Defic Syndr](#). 2005 Dec 1;40(4):451-5. [PMID:16280701](#)
- 86) Fields KS, Petersen MJ, **Chiao E**, Tristani-Firouzi P. Case reports: treatment of nevirapine-associated dress syndrome with intravenous immune globulin (IVIG). [J Drugs Dermatol](#). 2005 Jul-Aug;4(4):510-3. [PMID:16004028](#)
- 87) Stier EA, Krown SE, Chi DS, Brown CL, **Chiao EY**, Lin O. Anal dysplasia in HIV-infected women with cervical and vulvar dysplasia. [J Low Genit Tract Dis](#). 2004 Oct;8(4):272-5. [PMID:15874871](#)
- 88) Teruya-Feldstein J, **Chiao E**, Filippa DA, Lin O, Comenzo R, Coleman M, Portlock C, Noy A. CD20-negative large-cell lymphoma with plasmablastic features: a clinically heterogeneous spectrum in both HIV-positive and -negative patients. [Ann Oncol](#). 2004 Nov;15(11):1673-9. [PMID:15520070](#)
- 89) **Chiao EY**, Krown SE. Update on non-acquired immunodeficiency syndrome-defining malignancies. [Curr Opin Oncol](#). 2003 Sep;15(5):389-97. [PMID:12960522](#)
- 90) **Chiao EY**, Ries KM, Sande MA. AIDS and the elderly. [Clin Infect Dis](#). 1999 Apr;28(4):740-5. [PMID:10825030](#)
- 91) **Chiao E**, Hadler J. From the Centers for Disease Control. Early childhood vaccination levels. [JAMA](#). 1992 Feb 5;267(5):628-9NB. As reported from: CDC. Early Childhood Vaccination Levels Among Urban Children in Connecticut 1990 and 1991. [MMWR RR2](#); 40: 888-90.1991. [PMID:1731124](#)

## *II. In Press*

1. Gutierrez AM, Hofstetter JD, Dishner E, **Chiao EY**, Rai D, McGuire AL. A right to privacy and confidentiality: Ethical medical care for patients in United States immigration detention. [Journal of Law, Medicine, and Ethics](#); Spring 2020

2. Sandulache VC, Wilde DC, Sturgis, **Chiao EY**, Sikora AG. A Hidden Epidemic of “Intermediate Risk” Oropharynx Cancer. [Laryngoscope Investigative Otolaryngology](#).

## *III. Submitted/Under Review*

1. Suk R, Montealegre J, Nemutlu G, Nyitray A, Chhatwal J, Bauer C, Chiao E, Schmeler K, Sonawane K, Deshmukh A. Knowledge of Human Papillomavirus (HPV), HPV Vaccine, and HPV-associated Cancers: Sex Differences in the United States, HINTS-5. [JAMA IM](#).

## b. Abstracts given during last three years:

- 1) **Elizabeth Chiao**, MD, MPH, Dorothy J. Wiley PhD, Shelly Y Lensing, MS, Teresa Darragh, MD, Mark H Einstein, MD, Naomi Jay, PhD, J. Michael Berry Lawhorn, MD, Ashish A Deshmukh, PhD, Joel M Palefsky, MD, Timothy Wilkin, MD, Luis F Barroso, MD, Rebecca Levine, MD, Audrey L French, MD, Humberto Guiot MD, Ross D Cranston, MD, Elizabeth Stier, MD. Screening Tests for Anal High-Grade Squamous Intraepithelial Lesion Detection in Women Living with HIV. Poster presented at 17th International Conference on Malignancies in HIV/AIDS (ICMH), Bethesda, MD, October 21-22, 2019.
- 2) Eva Clark, Liang Chen, Yongquan Dong, Suchismita Raychaudhury, Jennifer Kramer, Donna White, **Elizabeth Chiao**. HIV+ Female Veterans Are At Increased Risk of Developing Genital Cancers. Poster presented at 17th International Conference on Malignancies in HIV/AIDS (ICMH), Bethesda, MD, October 21-22, 2019.
- 3) Eva Clark MD, Kathryn E. Royse, Yongquan Dong, Elaine Chang, Suchismita Raychaudhury, Jennifer Kramer, Donna White, **Elizabeth Chiao**. Burkitt Lymphoma in The ART Era: Stable Incidence, Poor Survival. Poster presented at 17th International Conference on Malignancies in HIV/AIDS (ICMH), Bethesda, MD, October 21-22, 2019.
- 4) Kathryn E. Royse, Jose M. Garcia, Donna L. White, Jennifer R. Kramer, Yongquan Dong, Suchismita Raychaudhury, Peter A. Richardson, Christine Hartman, **Elizabeth Y. Chiao**. Prostate adenocarcinoma incidence and risk factors in Veterans with well controlled HIV infection. In: Proceedings of the American Association for Cancer Research Annual Meeting 2019, March 29- Apr 3; Atlanta, GA. Philadelphia
- 5) Domgue JF, Messick C, Milbourne A, Guo M, Salcedo M, **Chiao E**, Dahlstrom K, Sturgis E, Schmeler K. Prevalence of anal dysplasia and cancer in women with lower genital tract dysplasia and cancer: Preliminary results of the PANDA Study. Accepted for presentation at the 17<sup>th</sup> Biennial Meeting of the International Gynecologic Cancer Society. Kyoto, Japan. September 14-16, 2018.
- 6) Mapakshi S, Kramer JR, Royse K, **Chiao E**, Garcia J, Kanwal F, El-Serag HB, Jiao L, White DL. Statins Use and Overall Survival in Pancreatic Cancer Patients: A Systematic Review and Meta-analysis. Accepted for presentation at the annual Digestive Disease Week 2018. Washington, DC. June 2-5, 2018.
- 7) Chang E, Thrift AP, White DL, Kramer J, Sabichi AL, Hartman C, Royse KE, Richardson P, **Chiao EY**. Nivolumab efficacy and safety in veterans with and without HIV infection. Accepted for presentation at the annual American Association for Cancer Research 2018. Chicago, Illinois. April 14-18, 2018.
- 8) Garcia JM, Kramer JR, Richardson PA, White D, Raychaudhury S, Chang E, Hartman C, **Chiao EY**. Effect of Diabetes, Metabolic factors and Medications on Risk of Lung Cancer among HIV-Infected Veterans. Accepted for presentation at the annual Endocrine Society 2018. Chicago, Illinois. March 17-20, 2018.
- 9) Thrift AP, Royse KE, Richardson PA, Raychaudhury S, Desiderio R, White DL, Kramer JR, **Chiao E**. Risk of Non-AIDS-Defining Cancers among Veterans with well-controlled HIV Infection. Accepted for presentation at the Conference on Retroviruses and Opportunistic Infections, Boston, MA, March 4-8, 2018.
- 10) Thrift AP, White DL, Nguyen HP, Royse KE, Kramer JR, **Chiao EY**. Trends in incidence of Kaposi Sarcoma among males in all 50 United States between 2000 and 2013. Accepted for presentation at the Conference on Retroviruses and Opportunistic Infections, Boston, MA, March 4-8, 2018.
- 11) Mapakshi S, Mbang P, Kramer JR, White DL, **Chiao EY**. Impact of Protease Inhibitor Based Regimens on Incidence of HIV associated Kaposi Sarcoma: A Systematic Review of Literature.



Presented at the International Conference on Malignancies in HIV/AIDS. Bethesda, MD. October 23-24, 2017

- 12) Thrift AP, Royse KE, Richardson PA, Raychaudhury S, Desiderio R, White DL, Kramer JR, **Chiao EY**. Risk Of Non-AIDS-Defining Cancers Among Veterans With Well-Controlled HIV Infection. Presented at the International Conference on Malignancies in HIV/AIDS. Bethesda, MD. October 23-24, 2017
  - 13) Chang E, Hartman C, Royse K, Kramer J, White D, Richardson P, **Chiao EY**. A Case Series of Nivolumab in Veterans with HIV Infection and Malignancy. Presented at the International Conference on Malignancies in HIV/AIDS. Bethesda, MD. October 23-24, 2017
  - 14) Mapakshi SR, Kramer JR, Royse KE, **Chiao E**, Garcia JM, Kanwal F, El-Serag H, Jiao L, White D. Statins Use and Overall Survival in Pancreatic Cancer Patients: A Systematic Review and Meta-analysis. Presented at the annual Digestive Disease Week Meeting, Chicago, Illinois, May 6, 2017.
  - 15) Biggerstaff K, Kramer J, **Chiao E**, Richardson P, Orengo-Nania S, Frankfort B, White D. Open Angle Glaucoma (OAG) and Uric Acid (UA) Levels in the Veteran Population. Presented at the 27<sup>th</sup> Annual Meeting of the American Glaucoma Society, Coronado, California. March 3, 2017.
  - 16) Biggerstaff K, Frankfort B, Orengo-Nania S, Garcia J, **Chiao E**, Kramer J, White D. Diagnostic Algorithms to Identify Primary Open Angle Glaucoma in Veterans Affairs Administrative Databases. Poster presented at 2016 Michael E. DeBakey VA Medical Center Research Poster Day, Houston, Texas, October 26, 2016.
  - 17) Biggerstaff K, Frankfort B, Orengo-Nania S, Garcia J, **Chiao E**, Kramer J, White D. Diagnostic Algorithms to Identify Primary Open Angle Glaucoma in Veterans Affairs Administrative Databases. Poster presented at 2016 Baylor Graduate Student Symposium, Houston, Texas, October 19, 2016.
  - 18) Varier I, Chew E, Ramsey D, Sikora A, **Chiao E**. HEALTHCARE UTILIZATION IN HPV - RELATED CANCERS. Presented at the AHSNS 9th International Conference on Head and Neck Cancer, Seattle, WA, July 18, 2016.
  - 19) Wilkin TJ, Chen H, Cespedes M, Paczuski P, Godfrey C, **Chiao E**, Luque A, Webster-Cyriaque JY, Bastow B, Cranston R. ACTG A5298: A Phase 3 Trial of the Quadrivalent HPV Vaccine in Older HIV+ Adults. CROI February 23, 2016.
  - 20) Oliver N, Hartman CM, Kramer JR, **Chiao EY**. Statin Use and the Impact on Cirrhosis Progression in a HIV/HCV Co-infected Population. Poster Presented at the Conference on Retroviruses and Opportunistic Infections, Boston, MA, February 23, 2016.
  - 21) Oliver N, Hartman CM, Kramer JR, **Chiao EY**. Metabolic Risk Factors Associated with HCC Development in an HIV/HCV Co-Infected Cohort. Poster Presented at the 15<sup>th</sup> Conference on Malignancies in AIDS and Other Acquired Immunodeficiencies, Bethesda, MD, October 26, 2015.
- c. Books:
- a. complete books written: N/A
  - b. books edited: N/A
  - c. book chapters written
    - 1) Chang E, **Chiao EY**. Oncologic Manifestations of HIV Infection. In The Sub-Specialty Care of HIV-Infected Patients. Nova Scientific Publications, 2018.
    - 2) Oliver N, **Chiao EY**. Malignant Diseases in HIV. In AAHIVM Fundamentals of HIV Medicine. Oxford University Press. 2017
    - 3) **Chiao E**. Malignant Diseases in HIV. In Looking for Daylight: Evidence in Medicine and Federal Policy on Comparative Effectiveness Research. Oxford University Press, 2016

- 4) Mbang P, **Chiao E**. Malignancies and Neoplasms. In AAHIMV Fundamentals of HIV Medicine. AAHIMV, 2012
- 5) Tarakaji M, **Chiao E**. Anal Canal Carcinoma. In Tumor Board Reviews, Guidelines and Case Reviews in Oncology, Demos Medical. 2012
- 6) **Chiao. E**. Epidemiology and Clinical Characteristics of Non-AIDS-Defining Malignancies in Molecular basis for therapy of AIDS defining cancers, Springer 2010
- 7) **Chiao EY**, Krown SE. Non-AIDS-Defining Cancers in HIV Infected Individuals. In, Viral and Immunological Malignancies. PA Volberding and J Palefsky, eds. American Cancer Society, Atlas of Clinical Oncology. 2006
- 8) Arora A, **Chiao E**, Tying S. Treatment of AIDS-Associated Viral Oncogenesis. In AIDS Associated Viral Oncogenesis. Myers, C editor. Springer publishing, 2007.
- d. Other works communicating research results to scientific colleagues: N/A
- e. Other works communicating research results to general public : N/A

### III. TEACHING INFORMATION

#### A. Educational Leadership Roles

1. CSTP research mentor,
2. T32 research mentor, Infectious Disease T32, medical oncology T32

#### B. Didactic course work

1. Courses taught at current institution:
  - a. Implicit Association Test (IAT) "Best Intentions" Workshop for the LACE course 2009-present
  - b. Patient Safety Course Steering Committee, 2011-2012
  - c. Infectious Diseases Course: Viruses and Cancer 2012-2018
2. Courses taught at other institutions: N/A
3. Courses expected to be taught at BCM: Undergraduate Medical Education: Infectious Diseases Course

#### C. Curriculum development work None

#### D. Non-didactic teaching

1. Resident training: 80 hours
2. Clinical Fellow training: Ben Taub General Hospital 4 weeks per year
3. Graduate Student training: PhD Dissertation Committee: Mark Kowalkowski, PhD September, 2013, Ashish Deshmukh, UTSPH PhD 2014, Hsuan-Chen Liu PhD 2019 (expected)
4. Estimate of kinds of non-didactic teaching expected at BCM: Mentor for internal Medicine Residents and Fellows Research; Dan Haim Cohen 2007-2008, and Natalie Dailey 2009-2010, Virginia Jackson 2011-2012, Pamela Mbang 2015-2016, Nora Oliver, Elaine Chang 2017-2018, Eva Clark 2018-2021
5. Medical School Mentor 2009-2011 Medical Students: Erin Chew 2016-2018, Alison Kremer Yoder 2018-2019
6. Mentor Junior Faculty: Maria Kim, MD; Saeed Ahmed, MD; Jose Zevallos, MD- recipient VISN 16 Pilot; Aaron Thrift, PhD, Michael Scheurer, PhD, Vlad Sandluche, MD/PhD, Bich Dang, MD, Andrew Dinardo, MD (pediatrics), Lillie Lin, MD (MDACC), Ashish Deshmukh, MD (University of Florida), Rachel Bender Ignacio, MD (University of Washington), Alan Nyitray, PHD (University of Texas School of Public Health)

#### E. Lectures and Presentations:

1. *International*:
  - a. **Chiao, E**. Panelist, Confronting the Challenges Relevant to HIV/AIDS Malignancies in Sub-Saharan Africa Symposium, Capetown, South Africa 7/31-8/2/2015
2. *National*:

- a. **Chiao, E.** Human Immunodeficiency Virus and Cancer: *A Multi-disciplinary Approach to Optimizing and Advancing Clinical Care*. Boston University Infectious Diseases Grand Rounds, March 21, 2019
  - b. **Chiao, E.** HIV in the Southern United States. Symposium: An Interdisciplinary History of the Struggle Against HIV/AIDS. University of Utah Law school, October 2, 2015
  - c. "HIV and the 50 plus population" 2007. AETC. Cornell University Medical College, NY, NY. June 15, 2007
  - d. "Oncology and HIV Disease" 2005. Quarterly Roundtable Discussion. Moderated by Kristen Ries, University of Utah.
3. *Regional:*
- a. The Epidemiology and Outcomes of HPV-Associated Malignancies. Cancer Program Continuing Medical Education, Alexandria, VA, 8/8/13
  - b. "HIV and the over 50 population" 15th Annual Thomas Street HIV Conference. Houston Hyatt. December 16, 2006
  - c. "HIV and the Elderly" West Houston Medical Center. Sponsored by Texas-Oklahoma AIDS Education Training Center. April 8, 2005
4. *Local:* (See FAP Educational Portfolio for additional recurring lectures)
- a. Research in Progress: VA Research Symposium, Michael E. Debakey, January 2018
  - b. Research in Progress: Infectious Diseases Division, Baylor College of Medicine, May 2017
  - c. Citywide Infectious Diseases Conference, Baylor College of Medicine, March 2016
  - d. BCM Grand Rounds: "Infectious Disease Update: HPV vaccine update", January 2012
  - e. BCM Grand Rounds: "CPC: Lumps on the Head", January 2012
  - f. Research in Progress: Infectious Diseases Division, Baylor College of Medicine, February 2008
  - g. CPC Internal Medicine, Baylor College of Medicine March 2007
  - h. "Update on AIDS-Related Malignancies" VA and Thomas Street Clinical Noon Conferences. January, 2006
  - i. Anal Cancer and Anal Cancer Precursors among HIV-Infected Individuals. Quality Research in Progress Seminar Series. Houston Center for Quality Care and Utilization Services (HCQCUS). October 8, 2005

**F. Visiting professorships: N/A**

**IV. MEDICAL AND SERVICE INFORMATION**

**A. Patient care responsibilities**

1. Department-wide: N/A
2. Section or specialty:
  - a. HIV/Infectious Disease Attending: Ben Taub General Hospital
    1. 1.5 months per year, 2006-current
  - b. HIV/Infectious Disease Clinic: Thomas Street Clinic
    1. ½ day every other week, 2006-current
  - c. Medical Oncology Clinic: Thomas Street Clinic
    1. ½ day every other week, plus emergency weekly visits, 2006-current
  - d. Anal Dysplasia Clinic: Thomas Street Clinic
    1. ½ day every week, 2006-current
  - e. Research Clinic (Med Onc and Anal Dysplasia) for AMC trials
    1. ½ day every week 2008-current

**B. Clinical Leadership or Business Development: N/A**

**C. Voluntary Health Organization Participation: N/A**

**V. SERVICE CONTRIBUTIONS**

**A. Administrative assignments**

1. Department administration, committees, etc:
2. College, School or University administration, committees, etc
  - a. IRB member July 2006- July 2009,
  - b. Baylor Department Medicine Research Committee, January 2018

**B. National, Regional or Local Participation in Professional or Voluntary Organizations**

1. Hurricane "Harvey" Hero September 2017

A handwritten signature in black ink, appearing to read "Gloria" or similar, with a stylized flourish at the end.

Last updated 12/30/2019